ABSTRACT

ISOLATIN CHITOSAN FROM LORJUK SHELLS (*Solen vaginalis*) WASTE AND CHARACTERIZATION

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This aims of this study was to isolate chitosan from *Lorjuk* (*Solen vaginalis*) shell which has higher economic value. Chitosan was isolated out of *Lorjuk* shells using No and Mayer method, including three stages deproteination, demineralization, and deacetylation, deproteination process was performed using NaOH 3.5% 1:10 (w/v), followed by demineralization using HCl 1 N 1:15 (w/v) and deacetylation using NaOH 60%. In the second study, the demineralization using HCl 1N 1:10 (w/v) followed by deproteination using NaOH 3.5% 1:10 (w/v), and deacetylation with NaOH 60% 1:20 (w/v). In the third study, the process using was almost the same with the first one, but using different HCl ratio. The chitosan obtained was identified with Fourier Transform Infra Red (FTIR) and the deacetylation degree of the chitosan was characterized. The results showed that chitosan can be isolated from lorjuk (*Solen vaginalis*) shells. The isolated chitosan was characterized by the presence of OH, CH, primary amine, C-O groups. The obtained yields of chitosan were 1.22%, 1.55%, 0.91% in the first, second, third study respectively, with deacetylation degree were 56%, 75%, and 73%.

Keyword :Chitosan, Solen vaginalis, Lorjuk shells